In the News

After Sharp Decline in Routine Childhood Immunizations During COVID-19, CDC Urges "Catch-up" Shots to Avert Outbreaks

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A sharp decline in routine vaccinations for children and adolescents during the early months of the COVID-19 pandemic may pose a risk of outbreaks of vaccine-preventable infections such as measles or whooping cough, warns a report from the Centers for Disease Control and Prevention (CDC).

Even though the rates of routine vaccinations in younger patients subsequently increased, the number of doses given did not rise to the level needed to bring many children and teens up to date. "This lag in catch-up vaccination might pose a serious public health threat that would result in vaccine-preventable disease outbreaks, especially in schools that have reopened for in-person learning," note the study's authors in the June 11 Morbidity and Mortality Weekly Report.

As a result, the CDC is advising clinicians to assess the vaccination status of all children and adolescents and take steps to reach out to those who are behind in their scheduled immunizations and ensure that they are fully vaccinated.

Because of concerns about disruptions to routine care during the pandemic, particularly after many regions instituted stay-at-home orders, the CDC undertook an analysis of immunization data from 10 US jurisdictions—9 states and New York City—with high-performing immunization information systems. They examined the number of vaccine doses for children and teens administered weekly during 2 periods—March 2020 through May 2020 (when many jurisdictions implemented stay-at-home orders) and June 2020 through September 2020 (when many jurisdictions lifted these orders)—and compared them with weekly doses during the same periods in 2018 and 2019.

The researchers looked specifically at vaccinations for diphtheria, tetanus, and acellular pertussis (DTaP) for children up to 23 months and children aged 2 years to 6 years; for measles, mumps, and rubella (MMR) for children aged 12 months to 23 months or aged 2 years to 8 years; for human papillomavirus (HPV) for children aged 9 years to 12 years and adolescents aged 13 years to 17 years; and for tetanus, diphtheria, and acellular pertussis (Tdap) for adolescents aged 13 years to 17 years.

Weekly vaccinations for children and teens in March through May 2020 were substantially lower for these routine vaccinations, across all age groups, compared with the same periods in 2018 and 2019. Administration of DTaP vaccine dropped across all 10 jurisdictions a median of 15.7% among children younger than 24 months and 60.3% among children aged 2 years to 8 years, whereas delivery of MMR vaccine decreased a median of 22.4% among children aged 12 to 23 months and 63.1% among those aged 2 years to 8 years.

The number of HPV vaccine doses given declined a median of 63.6% among children aged 9 years to 12 years and 71.3% among adolescents aged 13 years to 17 years in March through May 2020 compared with the same period during the previous 2 years. Doses of Tdap vaccine given in March through May 2020 declined a median of 66.4% and 61.4% among children aged 9 years to 12 years and teens aged 13 years to 17 years, respectively, compared with 2018 and 2019.

The rates of routine vaccinations rose again during June through September 2020 after most stay-at-home orders had been lifted, even surpassing prepandemic levels, but "this increase was not sufficient to achieve the catch-up vaccination needed to address the many months when children missed routine vaccination," the report says.

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Fear of contracting COVID-19 during visits to medical facilities or in the community may have prevented some parents from pursuing routine care for their children, the authors said. The transition from in-person to remote learning also might have hampered enforcement of immunizations required for attending schools.

Even a temporary decline in vaccination coverage can compromise herd immunity and result in outbreaks, the authors said, pointing to the occurrence of a measles outbreak in 2018 and 2019 in Rockland County, New York, and nearby counties. Measles vaccination coverage in schools in the affected area was only 77%, considerably less than the 93% to 95% coverage needed to maintain herd immunity against measles.

The authors warn that such outbreaks “have the potential to derail efforts to reopen schools for the 2021-22 academic year and further delay nationwide efforts to return students to the classroom.”

The CDC recommends that as COVID-19 vaccinations become readily available to younger populations, clinicians “consider co-administering COVID-19 vaccines with other routinely recommended vaccines, especially when patients are behind or might fall behind on routine recommended vaccines.”

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